REMARKS

Claims 1, 3-4, 7-11, 14, 16-21, 23 and 25 are pending in this application. By this Amendment, claims 1, 3-4, 7-11, 14, 16, 21 and 23 are amended and claims 12, 22, 24 and 26 are canceled without prejudice or disclaimer. Various amendments are made for clarity and are unrelated to issues of patentability.

Entry of the amendments is proper under 37 C.F.R. §1.116 because the amendments: (1) place the application in condition for allowance; (2) do not raise any new issues requiring further search and/or consideration; and/or (3) place the application in better form for appeal, should an appeal be necessary. More specifically, the above amendments amend the independent claims to include features (of a queue type structure) from dependent claims 12, 22, 24 and 26 and to clarify the previously claimed features relating to a sequential order. Entry is thus proper under 37 C.F.R. §1.116.

The Office Action rejects claims 1, 3-4, 6-12, 14 and 16-26 under 35 U.S.C. §102(b) over U.S. Patent 6,594,267 to Dempo. The rejection is respectfully traversed with respect to the pending claims.

Independent claim 1 recites sequentially storing the divided CPS packets into a plurality of first storage areas each having a queue type structure and with each first storage area corresponding to a different one of a plurality of virtual paths/virtual channels (VPs/VCs) of the respective CPS packets, and sequentially storing first identifiers of the plurality of first storage areas in a sequential order, each first identifier corresponding to a different one of the plurality

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of first storage areas and to a different one of the plurality of VPs/VCs. Independent claim 1 also recites that the sequentially storing the first identifiers includes generating a first reference table that maps each of the first identifiers in the sequential order to the corresponding one of the VPs/VCs.

Dempo does not teach or suggest at least these features of independent claim 1, which includes features of previous dependent claim 12. More specifically, Dempo does not teach or suggest features relating to sequentially storing and/or a plurality of first storage areas each having a queue type structure, as recited in independent claim 1. More specifically, the Office Action (on pages 3 and 15) states that Dempo discloses storing CPS/PDUs in FIFO memory 12 while addresses concerning the CPS/PDUs are stored in FIFO memory 13. The Office Action (on page 16) also states that Dempo's method of storing information using a FIFO operation is based on a first come, first served behavior using read and write pointers when the information is processed in the order they arrive. Dempo clearly describes that CPS-PDUs are stored in FIFO memory 12 and internal addresses are stored in FIFO memory 13. See col. 8, lines 4-10 and col. 9, line 60-col. 10, line 15.

However, Dempo does not teach or suggest the claimed plurality of first storage areas and/or the sequential storing of the divided CPS packets into a plurality of first storage areas. That is, Dempo's alleged storing within the first FIFO memory 12 does not teach or suggest sequentially storing divided CPS packets into a plurality of first storage areas each having a queue type structure. Dempo's FIFO memory 12 does not teach or suggest that each of a plurality of

first storage areas having a queue type structure, as recited in independent claim 1. The Office

Action (on pages 4-5) states that the claimed sequential storing reads on a FIFO emmory.

However, Dempo does not teach or suggest the features relating to sequentially storing in

combination with a plurality of first storage areas each having a queue structure, as recited in

independent claim 1. When discussing previous dependent claim 12, the Office Action states

that Dempo discloses that CPS-PDUs are stored in a FIFO memory 12 and addresses are stored

in FIFO memory 13.   However, FIFO memory 12 does not teach or suggest a plurality of first

storage areas each having a queue type structure. Additionally, FIFO memory 13 does not teach

or suggest a plurality of first storage areas each having a queue type structure.

Independent claim 1 also recites reading the stored CPS packets in the order of the first

identifiers stored in the first reference table, sequentially storing the read CPS packets in a

plurality of second storage areas used to route the CPS packets to each destination, wherein each

of the plurality of second storage areas has a queue type structure and that corresponds to a

different one of a plurality of destination channel identifiers (CIDs), and sequentially storing

second identifiers of the plurality of second storage areas, each second identifier corresponding

to a different one of the plurality of second storage areas and to a different one of the plurality

of destination CIDs, wherein the sequential storing the second identifiers includes generating a

second reference table that maps each of the second identifiers in the sequential order to the

corresponding one of the plurality of destination CIDs.

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For at least similar reasons as set forth above, Dempo does not teach or suggest the claimed plurality of second storage areas each having a queue type structure and/or the sequentially storing (in combination with the plurality of second storage areas). Dempo's FIFO memory 18 does not include a plurality of second storage areas each having a queue type structure. Additionally, Dempo's FIFO memory 19 does not include a plurality of second storage areas each having a queue type structure.

Dempo also does not teach or suggest the other features of independent claim 1 relating to the first/second plurality of second storage areas, the queue type structure (of each of the storage areas) and/or the claimed sequential storing. For at least the reasons set forth above, Dempo does not teach or suggest all the features of independent claim 1. Thus, independent claim 1 defines patentable subject matter.

Independent claim 14 recites a first memory that <u>sequentially stores</u> the divided CPS packets into a plurality of first storage areas with <u>each of the plurality of first storage areas having a queue type structure</u> and corresponding to a different one of a plurality of virtual paths/virtual channels (VPs/VCs) and that <u>sequentially stores</u> first identifiers of the first storage areas in a sequential order, each first identifier corresponding to a different one of the plurality of first storage areas and to a different one of the plurality of VPs/VCs, wherein the first memory includes a first reference table that maps the first identifiers to the corresponding one of the plurality of VPs/VCs. Additionally, independent claim 14 recites a CPS packet switching unit that reads the stored CPS packets from the plurality of first storage areas <u>in the sequential order</u>

of the stored first identifiers and routes the read CPS packets. Independent claim 14 also recites a second memory that <u>sequentially stores</u> the routed CPS packets into a plurality of second storage areas with <u>each of the plurality of second storage areas having a queue type structure</u> and corresponding to a different one of a plurality of destination channel identifiers (CIDs), and <u>sequentially stores</u> second identifiers of the plurality of second storage areas <u>in a sequential order</u>, each second identifier corresponding to a different one of the second storage areas and to a different one of the plurality of destination CIDs, wherein the second memory includes a second reference table that maps the second identifiers to the corresponding one of the plurality of destination CIDs.

For at least similar reasons as set forth above, Dempo does not teach or suggest at least these features of independent claim 14. More specifically, Dempo does not teach or suggest the features relating to a plurality of first storage areas each having a queue type structure, a plurality of second storage areas each having a queue type structure, and the claimed sequential storing. Thus, independent claim 14 defines patentable subject matter.

Independent claim 16 recites first, second, third, and fourth memories that each <u>sequentially store</u> ATM adaptation layer 2 (AAL2) type common part sublayer (CPS) packets and output the CPS packets <u>in a sequential order of their respective storage</u>, wherein each of the first, second, third and fourth memories has a separate plurality of storage areas. Independent cl aim 16 also recites a reassembly processing unit that divides an input AAL2 cell into the AAL2 type CPS packets, stores the divided CPS packets in different ones of a plurality first storage areas of

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the first memory with <u>each of the plurality of first storage areas having a queue type structure</u>

and corresponding to a different one of a plurality of virtual paths/virtual channels (VPs/VCs),

and stores first identifiers of the different ones of the plurality of first storage areas in the second

memory, each one of the plurality of first storage areas having a different first identifier that

corresponds to one of the plurality of VPs/VCs. Independent claim 16 also recites a CPS packet

switching unit that reads the CPS packets stored in the first memory <u>in a sequential order</u> of the

first identifiers stored in the second memory, stores the read CPS packets in different ones of a

plurality of second storage areas of the third memory with <u>each of the plurality of second storage</u>

<u>areas having a queue type structure</u> and corresponding to a different one of a plurality of

destination channel identifiers (CIDs), and stores second identifiers of the plurality of second

storage areas in the fourth memory, each of the plurality of second storage areas having a

different second identifier that corresponds to one of the plurality of destination CIDs.

For at least similar reasons as set forth above, Dempo does not teach or suggest at least

these features of independent claim 16. More specifically, Dempo does not teach or suggest the

features relating to a plurality of first storage areas each having a queue type structure, a plurality

of second storage areas each having a queue type structure, and the claimed sequential storing.

Thus, independent claim 16 defines patentable subject matter.

For at least the reasons set forth above, each of independent claims 1, 14 and 16 defines

patentable subject matter. Each of the dependent claims depends from one of the independent

claims and therefore defines patentable subject matter at least for this reason. In addition, the

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dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1, 3-4, 7-11, 14, 16, 21, 23 and 25 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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